

Recycling Process

Facts and Figures

Clover Environmental Solutions Ltd currently collects in excess of 6 million used toner and inkjet cartridges a year - conserving the 15 million litres of oil it would have taken to build new cartridges.

It is estimated that every year 375 million cartridges worldwide, including 30 million in the UK, are dumped into landfill sites, where they will take up to 1,000 years to decompose. 90% of these cartridges could be remanufactured or refilled several times before the component parts need to be recycled or disposed of.

Some recycling schemes run by printer manufacturers may operate by breaking down the component parts for reprocessing, e.g. plastics are ground down to pellets and used as raw material, or discarded as waste. Additionally, the return programmes they operate concentrate only on their brand of cartridges. In reality most offices will use various brands of printers, fax machines and copiers. Clover Environmental Solutions collects a vast range of cartridges.

All the recyclable cartridges Clover Environmental Solutions collects will have further life as remanufactured or re-filled cartridges before the components are reprocessed. This re-use recycling is the preferred EU solution.

Clover Environmental Solutions Recycling Process

All cartridges we receive are given a physical inspection for damage. Undamaged, recyclable cartridges are then packed and stored, ready for remanufacture.

Cartridges that are broken or non-recyclable, as well as packaging materials, are disposed of in the following ways:

- Waste cardboard is baled and passed on for recycling.
- Broken/non-recyclable cartridges are sent to a plastic/metal recycler who will reprocess approximately 95% of the mass and extract metals and plastics for recycling.
- Broken cartridges may be dismantled for internal components that can still be used in the remanufacturing process.
- Plastic packaging from the cartridges we collect is stored and passed on for recycling.
- Remaining products that we are unable to pass on for recycling are disposed of via a licensed waste management company for disposal in landfill. (This would include polystyrene and metal packaging e.g. foil bags which cannot as yet be recycled).
- Overall, only 0.7% of the used printer cartridges we receive will be sent to landfill.

A list of cartridges that we are able to purchase for recycling is available on request. We actively discourage the return of empty toner bottles, as these are not recyclable.

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Laser Toner Cartridge Remanufacturing Process

Toner cartridges are first dismantled and cleaned. Worn parts are fully tested and replaced where necessary. Any parts not suitable for further printing are passed on to either waste metal or waste plastic recyclers. The cartridge hopper is filled with compatible toner and then the cartridge is reassembled, labeled, tested and packed ready for sale. Toner cartridges do not contain hazardous materials and similarly hazardous materials are not used in the remanufacturing process.

Inkjet Cartridge Refilling Process

Empty inkjet cartridges are thoroughly cleaned and refilled with fresh ink using specialist equipment, then tested prior to resale. Unlike laser toner cartridges, inkjet components are not usually replaced and some units are not recyclable. These units are passed on to reprocessing companies, which break the units down to their core components for recycling.

It is Clover Environmental Solutions' objective to minimize the volume of waste going to landfill. By working with our suppliers and recycling companies we continually improve our performance.